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### Hookah smoking

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# ONE LAST PUFF

Campaigners are trying to get hookah smoking exempted from England's smoking ban for cultural reasons. Despite there being little research into the health effects, **Rashid Gatrad and colleagues** say the ban should stay in place

A hookah—also known as hubbly bubbly, shisha, or narghile—is a glass based waterpipe used for smoking. It operates by water filtration and indirect heat. Tobacco or molasses are placed in the bowl at the top of the apparatus, which is connected to the water filled base by a pipe. This bowl is then covered with perforated material, such as kitchen foil. Burning charcoal is then placed on top of the foil. During inhalation the smoke from the charcoal is pulled through the tobacco down the pipe and towards the water. After bubbling through the water, the cooled smoke surfaces and is drawn through the hose and inhaled. Some hookahs have a “choke” to control the amount of smoke inhaled. Electric burners are also available, which offer a quicker smoke than the original charcoal burners.

## How common is waterpipe smoking?

Around 100 million people use a hookah daily worldwide.<sup>1</sup> Some of these smokers are children—a study in the central region of Israel among predominantly Jewish secondary school children found that 41% had or were smoking tobacco through a hookah.<sup>2</sup> Similarly, a US study of Arab American adolescents found that 27% had experimented with a hookah.<sup>3</sup>

Introduction of flavoured and aromatic tobacco has helped broaden the appeal of hookahs, both in their traditional homelands and in Western Europe. In Egypt, for example, younger adults prefer fruit flavoured tobacco, whereas older people tend to prefer smoking molasses—thick treacle-like syrups that burn like tobacco leaf products but are nicotine free.

Although the hookah is commonly used for smoking herbal fruits after meals, it has recently become increasingly used for smoking tobacco, *massel* (aromatic tobacco), *cannabis*, and *bango* (an intoxicating plant leaf).

## Social activity

The hookah is commonly shared among family members including children, friends,

and guests. Hookah establishments are also increasingly found around university campuses, where multiple hose waterpipes are used for group smoking. Recent work indicates that relative to cigarette smoking, tobacco used in a waterpipe is characterised by more intermittent use, greater social acceptability, increased use among women, and a lower interest in quitting, probably because people are less aware of its addictive properties.<sup>4</sup> Family attitudes towards children smoking tobacco in waterpipes are reported to be far more permissive than attitudes to cigarette smoking.<sup>5</sup> Our observations among the children of friends, relatives, and acquaintances confirm this.

## UK experience

Rising numbers of children in the UK are being exposed to and experimenting with smoking hookah products.

Although accurate data are lacking, children as young as 10 years old are known to smoke fruit flavoured aromatic tobacco in areas with large minority ethnic communities such as Leicester and London.

Hookahs are relatively commonplace in Middle Eastern restaurants. A session of smoking typically costs £5 to £15. For those wanting to smoke at home, a hookah costs from £30 to £300. Many are, however, brought over more cheaply from the Middle East after business or holiday travel.

Not all tobacco packaging exhibits a warning on the effects of tobacco or the content of nicotine. And it is relatively easy for children to buy tobacco for use in hookahs without many questions being asked.

## Health risks

Little is known about the pharmacological effects and dependency associated with smoking tobacco in a hookah. The nicotine content in hookah tobacco seems to be the same as in cigarettes.<sup>6</sup> Hookah smoking carries a greater risk of carbon monoxide poisoning than cigarette smoking,<sup>7</sup> particularly if smaller hookah pipes and “quick lighting” commercial charcoal are used.<sup>8</sup>

There is also some evidence that hookah smoking causes chromosomal damage.<sup>9</sup> The concentration of cancer causing additive substances may be equivalent to that in cigarettes, but hookah smokers are additionally exposed to the carcinogenic effect of hydrocarbons and heavy metals in the charcoal. Gum disease has been reported to be five times more common in hookah smokers than in cigarette smokers.<sup>10</sup> Shared smoking also carries a small but important risk of transmitting infectious diseases directly into the respiratory tract.

## Implications of UK Health Act

When used for smoking tobacco, the hookah is included in the legislation that came into force in England in July 2007 banning smoking in public places.<sup>11</sup> We believe that including the hookah in the legislation is appropriate since the exposure of non-smokers to tobacco fumes is considerably higher than for cigarette smoking because of the large plume of smoke

that the hookah generates. It remains to be seen what effect this legislation will have on smoking non-tobacco containing products that still generate a large amount of smoke.

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**Competing interests:** AS chairs the National Clinical Assessment Service's Equality and Diversity Forum and is co-chair of the Science and Research Committee of the British Thoracic Society.

References are in the full version on [bmj.com](http://bmj.com)



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Up in smoke? Are hookah bars here to stay?